

Remarks/Arguments

Claims 1 – 16 are pending. Claims 1 – 16 stand rejected. The drawings stand objected to. The abstract of the disclosure stands objected to. The disclosure stands objected to.

Drawings

The drawings stand objected to. More particularly, Fig. 4 stands objected to because the specification fails to disclose the item number of the frame memory. Applicant has amended the paragraph beginning on line 8 of page 12, and ending on line 16 of page 12, to refer to frame memory 19. Accordingly, Applicant respectfully requests reconsideration and removal of this objection.

Figure 4 has been amended herein to show frame memory 19 may be used at the dithering block 19 level, as is explicitly stated on page 12 of the specification, in the paragraph beginning in line 8 and ending in line 16. Accordingly, Applicant submits no new matter has been added.

Abstract

The abstract stands objected to. Applicant has amended the abstract to better conform with MPEP 608.01(b). Accordingly, Applicant respectfully requests reconsideration and removal of this objection.

Disclosure

The disclosure stands objected to because page 2, lines 19-21 require rewording to improve clarity. Applicant has amended the sentence objected to. The disclosure stands objected to because page 2, lines 1-4 and 6-8 utilized improper decimal point indicators. Applicant has amended these indicators to be periods. The disclosure stands objected to because page 3, lines 28-29 and page 11, lines 28-30 use the language “expressively refer”. Applicant has amended these recitations, consistent with the Examiner’s suggestion to recite “incorporate” and “reference.” The disclosure

stands objected to as including a typographical error on page 7, line 26. Applicant has corrected with typographical error.

Accordingly, Applicant believes all of the objections to the disclosure have been overcome, and respectfully requests their reconsideration and removal.

Claim Objections

Claims 1 and 8 stand objected to as including extraneous spaces. The amended claim listing herein omits these spaces. Accordingly, Applicant respectfully requests reconsideration and removal of these objections.

35 U.S.C. 112, first paragraph, Rejection

Claim 16 stands rejected under 35 U.S.C. 112, first paragraph. More particularly, Claim 16 stands rejected because the specification purportedly fails to provide details to support the statement that the controlling means controls the dithering means “temporally in dependence frames of said video.” Applicant respectfully traverses this rejection.

Applicant respectfully submits Claim 16 fully complies with the requirements of 35 U.S.C. 112, first paragraph. For example, referring to the present specification, on page 8, in lines 18-21, the present specification teaches, “[t]he temporal component of the dithering function may be introduced by controlling the dithering in the rhythm of picture frames. Thus, no additional synchronisation has to be provided.” And, on page 11, lines 24-26, the present specification teaches, “[t]he plasma control unit 18 provides the code for the subfield coding unit 16 and the dithering pattern DITH for the dithering block 12.”

Accordingly, Applicant submits Claim 16, which recites, “controlling means connected to said dithering means for controlling said dithering means temporally in dependence of frames of said video data,” is adequately supported by the present specification, and fully meets the requirements of 35 U.S.C. 112, first paragraph. Thus, Applicant respectfully requests reconsideration and removal of this rejection.

35 U.S.C. 103(a) Rejections

Claims 1-2, 6-7, 8-9 and 13-14 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lin (United States Patent No. 6,421,466) in view of Mikoshiba (United States Patent No. 5,907,316). Claims 3-5, 10-12 and 15 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lin in view of Mikoshiba and further in view of Correa (European Patent Application No. EP1136974A1). Applicant respectfully traverses these rejections, and requests their reconsideration and removal for at least the following reasons.

To establish a prima facie case of obviousness, all of the recited claim limitations must be taught or suggested in the prior art. See, *MPEP 2143.03*; see also, *In re. Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Applicant submits the cited art fails to teach each of the limitations of any of the present Claims, and hence, as a matter of law, fails to render any of the present Claims unpatentable.

Turning first to Claim 1, the present claim is directed to a method for processing video data for display on a display device having a plurality of luminous elements. Claim 1 recites in relevant part, “changing at least one of the phase, amplitude, spatial resolution and temporal resolution of said dithering function in accordance with said at least one motion vector when applying the dithering function to said video data.” Thus, Claim 1 recites a method for processing video data using motion compensated dithering. See, e.g., *Specification, page 10, lines 1-6 (which discuss advantages of motion compensated dithering)*. Applicant submits the cited art fails to teach, or suggest motion compensated dithering, no less “changing at least one of the phase, amplitude, spatial resolution and temporal resolution of said dithering function in accordance with said at least one motion vector when applying the dithering function to said video data” – as is recited by Claim 1.

First, Applicant notes Lin discloses computing motion vectors for video data. Lin teaches dithering methods can be used to reduce the width or number of bits for each pixel. However, the computing of motion vectors and dithering of Lin are wholly independent of one another. Hence, Lin fails to teach or suggest motion compensated dithering, and thus clearly fails to teach “changing at least one of the phase, amplitude,

spatial resolution and temporal resolution of said dithering function in accordance with said at least one motion vector when applying the dithering function to said video data” – as is recited by Claim 1.

The Mikoshiba reference fails to remedy this deficiency of Lin. Instead, Mikoshiba merely teaches using a motion vector detection unit for detecting a motion vector that indicates a moving direction of the halftone image, by comparing display data for a first frame of the halftone image with data for a second frame next to the first frame, and a differing (not dithering) unit for differing (not dithering) the display position of the half-tone image from sub-frame to sub-frame in the first frame according to the motion vector. Thus, Mikoshiba merely teaches changing a display position according to motion vectors. Moreover, Mikoshiba, like Lin, fails to teach, or suggest, “changing at least one of the phase, amplitude, spatial resolution and temporal resolution of said dithering (and not differing) function in accordance with said at least one motion vector when applying the dithering function to said video data” – as required by Claim 1.

Consequently, importing the teachings of Mikoshiba into Lin merely supplements the deficient teachings of Lin to include changing the display position of an image according to motion vectors. Thus, there is no teaching or suggestion to change parameters of a dithering method in accordance with motion vectors, as only the spatial and/or resolution of the video image would be changed. Accordingly, Applicant submits the Lin and Mikoshiba fail to teach, or suggest, motion compensated dithering at all, no less “changing at least one of the phase, amplitude, spatial resolution and temporal resolution of said dithering function in accordance with said at least one motion vector when applying the dithering function to said video data” – as is recited by Claim 1.

For the foregoing reasons, Applicant respectfully requests reconsideration and removal of the rejection of Claim 1. Applicant also requests reconsideration and removal of the rejections of Claims 2-7 as well, at least by virtue of these claims’ ultimate dependency upon a patentably distinct base Claim 1.

With regard to Claim 8, the present claim analogously recites in relevant part, “wherein at least one of the phase, amplitude, spatial resolution and temporal resolution of said dithering function is changeable in accordance with said at least one motion

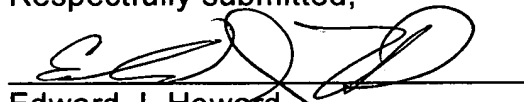
vector." Accordingly, Applicant respectfully requests reconsideration and removal of the rejection of Claim 8 for at least the foregoing reasons. Applicant also requests reconsideration and removal of the rejections of Claims 9-16 as well, at least by virtue of these claims' ultimate dependency upon a patentably distinct base Claim 8.

CONCLUSION

Applicant believes he has addressed all outstanding grounds raised by the Examiner and respectfully submits the present case is in condition for allowance, early notification of which is earnestly solicited.

Should there be any questions or outstanding matters, the Examiner is cordially invited and requested to contact Applicant's undersigned attorney at his number listed below. Should there be any fees due and owing the Patent Office is authorized to charge such fees to Deposit Account 50-3208.

Respectfully submitted,


Edward J. Howard
Registration No. 42,670
ph: 215-542-5824

c/o Thomson Licensing Inc.
Two Independence Way
P.O. Box 5312
Princeton, NJ 08543

In the Drawings:

Please amend the Drawings as follows and without prejudice.

The attached sheet of Drawings includes changes to Figure 4. The attached sheet replaces the original sheet containing Figure 4. The direction of the arrow between frame memory 19 and dithering block 12 has been corrected to point towards dithering block 12.

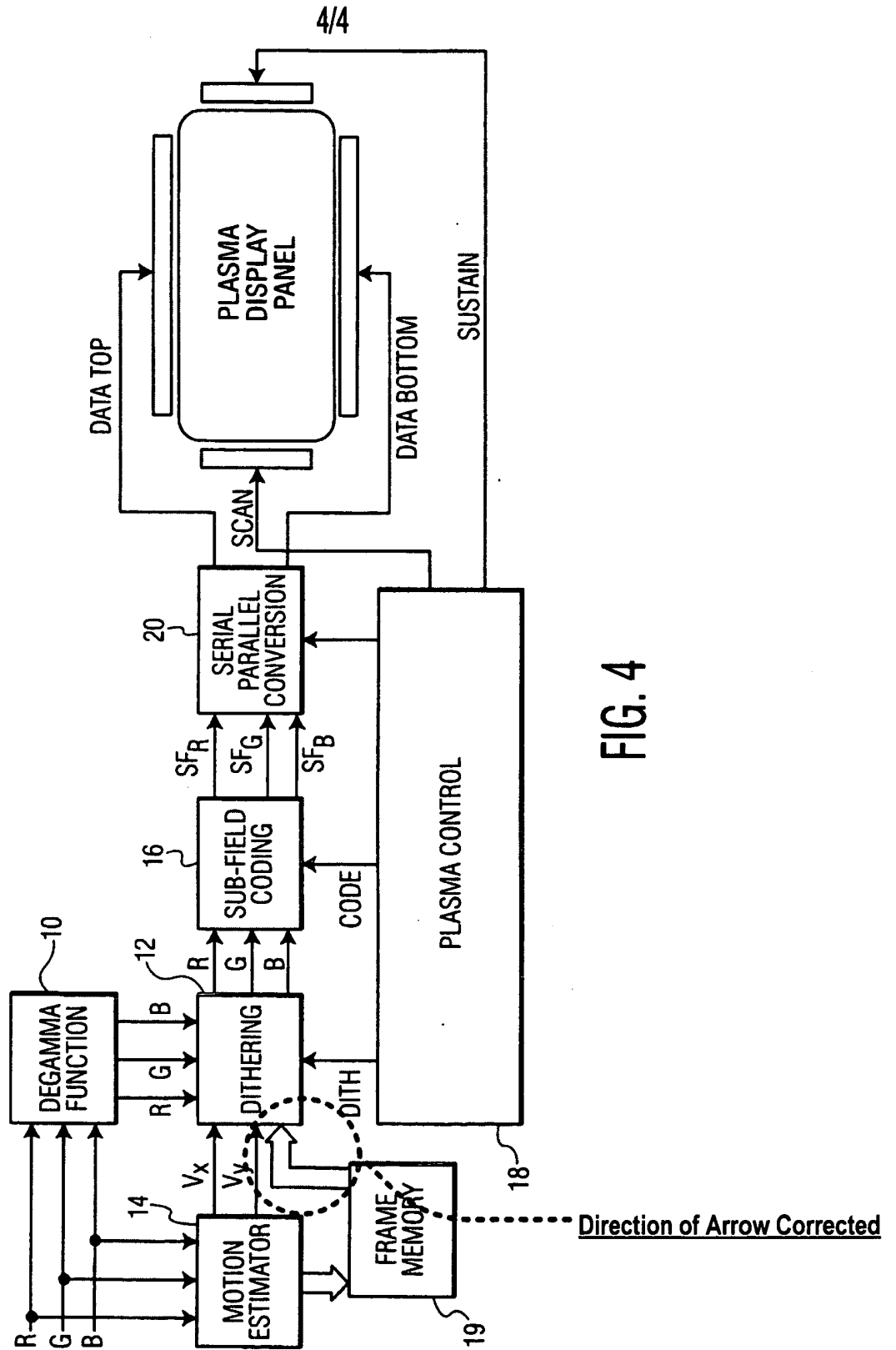


FIG. 4